



### **ELEVATE CRYOSECTIONING WITH UNMATCHED PRECISION AND SAFETY**



## **HistoDream Cryostats**Smart and Advanced Cryostats

# FREEZE QUICK. CUT CLEAN.

In the field of pathology, frozen sectioning demands reliable, efficient instrumentation to **deliver rapid, high-quality intraoperative interpretations**, crucial for making timely, informed decisions during surgery.

The HistoDream cryostat line features systems specifically engineered to support laboratories with **advanced cooling technology capable of reaching temperatures as low as -35°C**. Specimens can be frozen quickly within the cooling chamber or sectioned after being prepared using the Milestone PrestoCHILL system.

A wide range of customizable settings allows adaptation to various clinical needs, ensuring the consistent production of high-quality frozen sections. With their **intuitive interface, ergonomic design, and integrated safety features**, Milestone cryostats are a reliable partner in streamlining and enhancing the frozen section workflow.

#### **CONTROL PANEL**

for easy parameter adjustments



#### **ERGONOMIC HAND WHEEL**

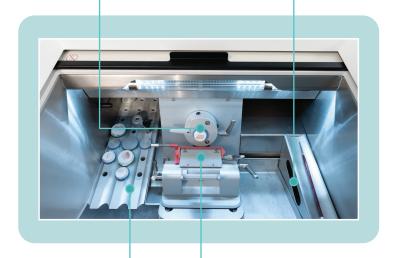
for smooth, effective microtomy

#### **FIXED SPECIMEN HEAD**

for reliable, stable specimen handling. Option for fixed specimen head that cools to -50°C (HistoDream CRIO PLUS)

#### **ACCESSORIES STORAGE AREA**

to keep work area organized and tools easily accessible



#### **BLADE HOLDER**

with precise movement toward the specimen

#### **COOLING BAR**

with two configuration options:

- 24 positions (HistoDream CRIO)
- 21 positions with 2 quick-freeze positions (HistoDream CRIO PLUS)



#### **ENHANCED CRYOSECTIONING PRECISION**

**ERGONOMIC DESIGN** 

**INTUITIVE EASE OF USE** 

**ENHANCED SAFETY** 

**ENVIRONMENTALLY RESPONSIBLE** 

# CONSISTENT QUALITY WITH EVERY FROZEN SECTION

#### ENHANCED CRYOSECTIONING PRECISION

The quality of microtomy is enhanced through **advanced cutting technology**, where the specimen holder remains fixed while the blade holder moves toward the specimen. This approach ensures stability by eliminating vibrations that could degrade the section quality. Moreover, the head is easily adjustable to align with the specific requirements of the specimen, and the anti-roll plate helps ensure smoother, more uniform sections.

The cooling chamber maintains a stable temperature through an **efficient cooling system combined with high-performance insulation**, ensuring consistent conditions throughout the entire process. Additionally, the glass window has a system to prevent condensation and frost buildup, ensuring full visibility during microtomy.



#### | ERGONOMIC DESIGN

The cryostat features a spacious work area that allows for easy maneuverability and can **comfortably accommodate up to 24 specimens on the freezing bar**, along with all the necessary cutting tools.

Cutting is precisely controlled using an **ergonomic hand wheel**, providing the operator with full control and flexibility. Once the procedure is complete, the handle can be retracted to reduce the system's footprint.

Defrost water is collected in an **external tank** mounted on the outside of the cryostat. The tank is easily accessible for ease of maintenance when emptying the tank.



#### INTUITIVE EASE OF USE

An **automatic overnight defrost function** maintains optimal conditions within the cooling chamber, while the freezing bar preserves its set temperature to ensure the integrity of the specimen. When needed, the defrost program can be activated to support chamber maintenance.

The operator can easily monitor the cryostat's status via a **user-friendly display** and adjust key parameters using a **keypad** conveniently located beside the glass window.

#### **| ENHANCED SAFETY**

A **built-in UV-C lamp** provides an automatic disinfection program as needed, helping to maintain a safe work environment and prevent cross-contamination between specimens. The system is equipped with **multiple sensors** that continuously monitor the temperature inside the cooling chamber and the overall status of the cryostat.

The **dedicated**, **smart LED system** of the chamber provides a clear visual feedback. For operator safety, a **blade guard** can be engaged when the instrument is not in use.



White LED confirms normal operation



Blue LED signals the unit is cooling to the set temperature



Red LED indicates an error

#### **ENVIRONMENTALLY RESPONSIBLE**

An **energy-saving mode**, active during nighttime hours, reduces power consumption—while still keeping the specimens safely preserved. An integrated window sensor detects when the window is open and promptly alerts the operator, **helping to prevent thermal dispersion and unnecessary activation of the cooling system**.

The gas integrated into the cooling system is **fully compliant with F-gas regulations**, supporting reduction of greenhouse gas emissions.

# FIND THE MODEL THAT BEST FITS

HistoDream cryostats are available in two different models—**HistoDream CRIO** and **HistoDream CRIO PLUS**—allowing laboratories to choose the configuration that best suits their specific needs.

#### **HistoDream CRIO - Smart Cryostat**



- » Advanced microtomy technology
- » Smart LED system
- » 24 freezing positions
- » UV-C disinfection
- » Single compressor system

#### **HistoDream CRIO PLUS - Advanced Cryostat**



- » Advanced microtomy technology
- » Smart LED system
- » 21 freezing positions
- » UV-C disinfection
- » Dual compressor system
- » 2 quick freezing positions
- » Specimen head cooling

#### | SPECIAL FEATURES OF HISTODREAM CRIO PLUS

The HistoDream CRIO PLUS model is equipped with:

- w two quick-freezing positions that can reach temperatures as low as -55°C, significantly accelerating the specimen freezing process.
- » an independent specimen head cooling system, managed by a second compressor, which maintains temperatures down to -50°C. This allows for optimal handling of particularly complex tissues, such as adipose or brain specimens.



# THE COMPLETE MILESTONE "FROZEN ISLAND"

Milestone offers a comprehensive range of solutions covering the **entire frozen section workflow** — from specimen freezing to staining — delivering high-quality frozen slides ready for accurate pathologist assessment.



#### STEP 1

#### Specimen freezing with PrestoCHILL

PrestoCHILL's rapid freezing technology at -40 °C enables the formation of six frozen blocks within 30 seconds, while preventing the creation of freezing artifacts.

#### STEP 2

#### Specimen cryosectioning with HistoDream CRIO

The HistoDream cryostats facilitate rapid and precise microtomy through the controlled advancement of the blade holder toward the specimen, resulting in frozen sections of superior quality.





#### STEP 3

#### Specimen staining with PRESTO PRO

PRESTO PRO offers automated staining of up to six frozen slides simultaneously, providing standardization and including full protocol customization for each tissue.

### OTHER MILESTONE SOLUTIONS FOR FROZEN SECTIONS AND FREEZING PROCESSING



**PrestoCHILL** 

Flash Chiller for Quality Frozen Sections



#### **PRESTO PRO**

Processor-Stainer for High Quality Frozen Sections



#### **FineFIX Module**

Enhanced Manual Staining for Frozen Sections



#### **FlashFREEZE**

Flash Freezer for Biobanking

## MILESTONE HELPING PATIENTS

Milestone is a company headquartered in Northern Italy and was founded in 1988 as a corporation specializing in advanced microwave instrumentation for analytical and organic chemistry labs. As the technology leader in pre-analytical instrumentation, Milestone supports a worldwide installed

base of over 25.000 systems. In 1994, Milestone established a separate Medical Division to expand our expertise in the crucial pre-analytical phase to the world of histopathology. We pioneered the first microwave rapid tissue processor for same-day diagnosis and the first macro-digital system to enhance the grossing step. Today, our rapid tissue processors, macro-digital imaging systems, and pre-analytical instrumentation are used every day in the most renowned clinical and research laboratories around the world. But we never stop. We continue to lead the industry with constant innovation and improvement. Driven by the leading principle we live by, Helping patients.

Specifications are subject to change without notice



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